NAHDO INPATIENT STATE ENCOUNTER DATA PRACTICE AND PRIORITIES STUDY
HIGH PRIORITY AND NON- ANSI X12N 837 ELEMENTS FOR INSTITUTIONAL TRANSACTIONS
SUMMARY MATRIX—DRAFT FOR PUBLIC HEALTH CONSORTIUM DISCUSSION ONLY

INPATIENT STATE FIELDS	NUMBER STATES COLLECT-ING	NATIONAL DEFINITION or DESCRIPTION	NAHDO RECOMMENDATION	JUSTIFICATION	CONCERNS	Core NCVHS Element Y/N
X12N ELEMENTS IMPORTANT TO DISCHARGE DATA						
External Cause of Injury Coding (Reporting Protocol)	38/42	837 X12N HI has a segment that requires: Diagnosis segment: HI 01, required: principal diagnosis HI 02, required: admitting diagnosis HI 03, required: primary External Cause of Injury code	**EXPAND REQUIRED PRIMARY E-CODE FIELDS IN X12N** **Add two additional required fields to HI diagnosis segment:** HI 04, situational if 03 is used then 04 must have the Place of Injury For consideration: a mechanism to collect adverse medical event occurrences: HI 05—situational—for Adverse Medical Event reporting if a state/jurisdiction requires such reporting for codes E 870-E879 or E 930- E949.9	Discharge data are an important source of surveillance information E-coding provides a framework for systematically collecting population-based information on occurrence, outcome, costs of medical treatment (1) Primary E-code, linked to occurrence code important for injury surveillance, domestic violence, workplace injury, assaults. **Adverse Event E-coding:** States will be charged with addressing medical errors issues, Medical errors surveillance is an emerging public policy issue---States will determine public release policies. Policies for protecting provider liability may be state issue.	E-coding for injury is needed for many payer and public health purposes and current standards accommodate this reporting. **Adverse Event E-coding**: State legal authorities and political environments differ and so will policies. Provider resistance and fear about how this information might be used Liability issues	**Y**

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12XN ELEMENTS IMPORTANT TO DISCHARGE DATA						
Payer Type: HMO Commercial HMO Medicaid HMO Medicare CHIP Indicator Charity Care Other: Self-pay Workers Comp CHAMPUS Title V Oth. Govt.	30/44 26/44 23/44 **5/44**	**X12N Payer Types:** 09 Self-pay 10 Central Certification 11 Other Non-Federal Program 12 Preferred Provider Organization (PPO) 13 Point of Service (POS) 14 Exclusive Provider Organization (EPO) 15 Indemnity Insurance 16 Health Maintenance Organization (HMO) Medicare Risk AM Automobile Medical BL Blue Cross/Blue Shield CH Champus CI Commercial Insurance DS Disability HM Health Maintenance Organization LI Liability LM Liability Medical MB Medicare Part B MC Medicaid OF Other Federal Prog. TV Title V VA Veteran Administration Plan WC Workers' Comp. Health Claim ZZ Mutually Defined	**NAHDO RECOMMENDS A STANDARD FOR CODING PAYER TYPE.** **FOR DISCUSSION: ARE THESE BREAKOUTS SUFFICIENT FOR PUBLIC HEALTH AND RESEARCH? ADDITIONAL FIELDS NEEDED? HOW TO INFORM STATES OF A NATIONAL STANDARD?**	This field is important to understand effects of insurance status on utilization, outcomes, access, cost. Variance by payer type is well-documented and informs purchasers, policy makers, and consumers. States have no uniform coding standard, often using the alpha field to make judgements. This field is important to understand effects of insurance status on utilization, outcomes, access, cost. Variance by payer type is well documented and informs purchasers, policy makers, and consumers. National comparisons of discharge utilization, outcomes, cost by payer type are not reliable	Coding of free text into payer type, line of business is not precise, varies by state	**Y** (Exp source of pmt)

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X12N ELEMENTS IMPORTANT TO DISCHARGE DATA						
Present on Admission Indicator	2/44	**X12N Situational** : Used to identify the diagnosis onset as it relates to the diagnosis: Y= indicates that the onset occurred prior to admission to the hospital; N=indicates that onset did not occur prior to admission to the hospital; U= indicates that it is unknown	**NAHDO RECOMMENDS INCLUSION OF THIS FIELD IN DISCHARGE DATA SYSTEMS** **FOR PUBLIC HEALTH CONSORTIUM**: 2) Assuring its inclusion in the next X12N Implementation guide	Documented by states using this field that this is an important field for quality improvement, patient severity adjustment, to distinguish admitting and discharge diagnoses, is used to monitor adverse events linked to staffing mix. Little provider resistance in states where this has been added	Education of states as to the 837 standard Need to assure that Present on Admission indicator will be included in the next version of the implementation guide	**Y**
Birthweight	15/44	**PAT 03 Segment;** PAT 07: Qualifier, grams PAT 08: Weight, required for delivery services	**NAHDO RECOMMENDS THE INCLUSION OF THIS ELEMENT IN STATE DISCHARGE DATA SYSTEMS** **ASSURE ITS RETENTION IN FUTURE IMPLEMENTATION GUIDES**	Important to maternal-child health programs and research Payers benefit from having this information for quality/ casemanagement/reimbursement	Education of state data agencies	**Y**

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X12N ELEMENTS IMPORTANT TO DISCHARGE DATA						
Race and Ethnicity	27/42	**DMG 05 Condition statement:** Used when reporting patient race or ethnicity with health care claim or encounter data is required by state or federal law or regulation or when reporting this data on a voluntary basis is permitted by state and federal law or regulation. **DMG 10 usage "situational. Add a data element note that refers to the codes source, the same code source as REC references (OMB classifications)** **DMG 11 situational (collection method code)** **REC Codes set includes:** <u>5 races</u>: American Indicator or Alaska Native Asian Black or African American Native Hawaiian or Other Pacific Islander White Multiple Ethnicities permitted: <u>Ethnicity</u>: Hispanic or Latino Not Hisptanic or Latino	**NAHDO RECOMMENDS THE INCLUSION OF THIS DATA ELEMENT INTO DISCHARGE DATA SYSTEMS WHERE PERMITTED BY STATE LAW AND REGULATION** **AND** **CONTINUED MONITORING OF THE USE AND VALUE OF RACE/ETHNICITY IN DISCHARGE DATA TO ASSURE INCLUSION IN FUTURE IMPLEMENTATION GUIDES**	Race/ethnicity data collection is essential to permit the measuring and narrowing of racial disparities in health, improving minority population health important Public Health Goal (HP 2010, Task Force on Black Minority Health, 1985) Currently, 27/42 states collect these fields and use the data for sub-group studies. State agencies collecting this field voluntarily are more likely to have lower compliance to reporting and are less likely to use this field due to questionable validity.	**STATE EDUCATION AS TO R/E INCLUSION IN 837 STANDARDS** **PUBLIC HEALTH CONSORTIUM MONITORING AND SUPPORT FOR R/E INCLUSION IN FUTURE IMPLEMENTATION GUIDES.** States and providers vary in their collection methodology, coding—compliance in states with voluntary reporting requirements is low. States with voluntary reporting may lose this field when providers report using the 837 transaction	**Y**

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X12N ELEMENTS IMPORTANT TO DISCHARGE DATA						
All dates (procedure, admitting, discharge)+	1/44	X12N provides for date, time, place fields for each procedure/diagnosis in the HI segment	**NAHDO RECOMMENDS THE INCLUSION OF THIS ELEMENT IN DISCHARGE DATA REPORTING SYSTEMS**	Utilization and quality evaluation	Education of state data agneices.	**Y (adm/d-c)**
Patient Educational Status	0	NCVHS: Years of Schooling completed by the patient For ages 0-18: Mother's years of schooling completed	**NO RECOMMENDATION:** **INVITE DISCUSSION ABOUT DEMOGRAPHIC DATA NEEDS**	Highly predictive of health status and health care use, as proxy for socioeconomic status	Collection burden	**Y**
Patient Marital Status **Patient living arrangement**	1/42 (HCUP 99) 1/33 (NAHDO 98)	X12N DMG 04 1067: Marital Status Code, NOT USED Married Never married Widowed/not remarried Divorced/not remarried Separated legally	**NO RECOMMENDATION: INVITE DISCUSSION ABOUT DATA NEEDS**	This element provides important information on the patient's social support system, which is predictive of current and future health status	Collection burden versus relative value, question of validity of coding and the degree to which it would improve predictive studies of health status, quality	**Y**

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X12N ELEMENTS IMPORTANT TO DISCHARGE DATA						
Patient's Relationship to Subscriber		**X12N: DMG-5: Required:** 01-Spouse 04-Grandparent 05-Grandchild 06-Nephew/Niece 10-Foster Child 15-Ward 17-Stepchild 19-Child 20-Employee 21-Unknown 22-Handicapped Dependent 23-Sponsored Dependent 24-Dependent of a Minor Depend. 29-Significant Other 32-Mother 33-Father 36-Emancipated Minor 39-Organ Donor 40-Cadaver Donor 41-Injured Plaintiff 43-Child where Insured has no responsibility 53-Life Partner G8-Other Relationship	**NO RECOMMENDATION: INVITE DISCUSSION** **ARE CATEGORIES SUFFICIENT AND OF VALUE TO DISCHARGE DATA/PUBLIC HEALTH/RESEARCH? CAN ANY OF THE X12N DEMOGRAPHIC FIELDS SUFFICE AS PROXY FOR NON-X12N DEMOGRAPHIC MEASURES (e.g. Marital status or relationship to subscriber for living arrangement?)**	Could serve as a proxy measure for support system, insurance status	Burden to collect if providers are not transmitting electronically, hospital systems differ	**Y**

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Total Provider Payment Amount (Paid Amount+)	1 state	Not in 837 Implementation Guide. X12N 835 Implementation Guide for Remittance Advice transactions does include the following: Total Payment made to the provider for this transaction	**NO RECOMMENDATION: INVITE DISCUSSION--ALTERNATIVE SOLUTIONS FOR STATES?** State-by-state solutions-no uniform standard recommended at this time	Educational issue to let states know that this element exists in the 835 Implementation guide. An important addition to discharge data sets—charge information has limited utility to cost, outcomes, market, consumer uses	Difficult to collect at discharge, considered "proprietary" information by providers	**N**
Current or Most Recent Occupation/ Industry		X12N; PAT 03: EMPLOYMENT STATUS CODE PAT 04 STUDENT STATUS CODE	**OPEN ISSUE—NO RECOMMENDATION**	Employment/occupational relationship to health an important predictor of health use, health status Other options may be the Standard Occupational Industry Code (SOIC)	Collection burden and reliability of data with point of service collection	**Y**

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PRIORITY DATA ELEMENTS FOR INCLUSION INTO 837 CORE DATA STANDARDS						
Mothers Medical Record Number (MMR)	5/22	None	**RECOMMEND INCLUSION IN X12N IMPLEMENTATION GUIDE**: Situational: newborn records, the medical record of the newborn child's mother which links the newborn's hospital stay and the mother's stay Blank for N/A 9999 no maternal admission to the hospital	Documented value for states using this field— Facilitates the linkage of maternal and newborn hospital stays important for assessing birth outcomes, utilization, and cost issues	None identified	**N**
Newborn Records: **Gestational Age**	1/44	Date of maternal LMP on Professional/837 Contained on birth certificates	**NO RECOMMENDATION** **INVITE DISCUSSION**	**ENCOURAGE LINKAGE POLICIES AND UNIQUE IDENTIFIERS** Adds value to maternal-child health cost, quality, outcomes studies. States with unique identifier and linkage policies have found this data element useful to public health. Payers benefit from having this information for quality/casemanagement/reimbursement	Not all states collect a unique identifier or have the capacity for linking major health data sets	**N**

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PRIORITY DATA ELEMENTS FOR INCLUSION INTO 837 CORE DATA STANDARDS						
Do Not Resuscitate (DNR)	2/44	May be used by states as a condition code	**NO RECOMMENDATION: INVITE DISCUSSION: DO WE NEED IT?** Example state standard: Y=DNR order written by physician N=DNR order not written U=Uncertain	Patient preferences useful in outcomes studies. One state found limited value while another uses this field in outcomes studies and experienced little provider resistance	Concerns about a patient's DNR order history throughout the inpatient stay (distinguishing initial DNR orders from those written later in the hospital stay). Provider and physician education required, cost burden to report	**N**
Patient County Code+	13/33 (NAHDO 98)	X12N includes patient zip and does have room for other codes.	**NO RECOMMENDATION: INVITE DISCUSSION** **DO WE NEED COUNTY CODE IN THE IMPLEMENTATION GUIDE? IS PATIENT ZIP SUFFICIENT?**	Useful for community assessment, market share studies, and small area analysis		**NCVHS: Full address and 9-digit zip**

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DATA CONTENT ISSUES—MORE STUDY NEEDED						
Pharmacy Data	0	NCVHS: All prescription medications dispensed by a pharmacists (NDC, dosage, strength, total amount) or linkage with the pharmacy record.	**NO RECOMMENDATION--CONTENT ISSUE, NEEDS MORE STUDY**	Prospective Payment will add value to key clinical data fields Targeted data collection of pharmacy data may reduce costs to collect for HEDIS (e.g. Beta Blocker with Acute Myocardial Infarction)	What are the essential data and their relative value to public health and research? Provider information systems not fully integrated.	**Y (meds prescribed/dispensed)**
Patient Functional Status/Self-reported health status+	3/33 (NAHDO 98)	**NCVHS:** Self-reported health status: Excellent Very Good Good Fair Poor	**NO RECOMMENDATION—INVITE DISCUSSION**	Documenting health status is important to medical care utilization.	More evaluation needed to determine if this information is best collected as a surveillance data element (vs. targeted surveys, limited collection)	**Y**

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DATA CONTENT ISSUES—MORE STUDY NEEDED						
EMS Run Number, Pre-hospital/transport record number	2 states known to collect	None identified	**NO RECOMMENDATION:** **LINKAGE NUMBERS AND PROTOCOLS** Optional: Example: Situational: Ambulance Transport to facility: The number of the Prehospital care Report Form which documents the care provided to the patient prior to the arrival at the facility by the transport service 999999: arrived by ambulance but prehospital care form not utilized or unknown	Linkage with ambulance/paramedic reports important to planning and outcomes analyses.	One state found that linkage was more reliable than collection of the transport record number	**N**

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ELEMENTS OF INTEREST, FOR DISCUSSION						
Severity Score	12/44	Derived data element in all but 1 state	**WHAT ARE THE CRITICAL PREDICTIVE ELEMENTS NEEDED?**	All but one state assigns a severity score using proprietary or internal algorithms based on patient characteristics, clinical coding	Uncertainty as to essential elements	**N**
DRG Code MDC Code		HCFA Groupers	**NO RECOMMENDATION** Calculated field	Assigned by provider or assigned by agency issue Many states group as a part of the data management process		**N**
Outlier Flag and Length of Stay (LOS)		Calendar year, in 3 month increments	**NO RECOMMENDATION** Calculated by agency	Many agencies assign this based on distributions of LOS/charges in analytic files		**N**
Hospital Health Services Area+	0		**NO RECOMMENDATION--**Derived by agency			**N**
Out of Business Indicator		Derived locally	**NO RECOMMENDATION--** States have alternate sources of structural provider information from licensing agencies, aggregate reporting. Standards are defined locally, in many cases.			**N**

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NATIONAL REGULATIONS PENDING—FOR ASSESSMENT AND MONITORING BY PUBLIC HEALTH CONSORTIUM						
PAYERID	42/42 (HCUP)	National Payer Identifier Number, pending national system	**NO RECOMMENDATION: Assess and respond to national regulations when posted**	Assure that numbering system meets public health and research needs		Y
Patient Social Security Number/Unique Identifier	17/33 (NAHDO, 98) 32/44 (HCUP, 99)	**NCVHS:** Personal/Unique Identifier: Name Numerical (one or a set of data items for linkage across providers over time) National Person Identifier not resolved.	**NAHDO RECOMMENDS STATE-LEVEL COLLECTION OF A UNIQUE IDENTIFIER** Where permitted by state law, states should collect a unique (or combination of unique) patient identifiers such as: SSN Name Combined/derived identifier (combination of name, SSN, Mother's Maiden name): example, NY: *"A composite field composed of portions of the patient's last name, first name, and social security number, date of birth, and gender for purposes of probabilistic matching criteria for linking individual patient records for longitudinal analysis*	"Establishment of a unique identifier is the most important core data item", NCVHS To leverage linkage with other major health data sets (when appropriate and permitted by state law), to identify/track episodes of care, quality and outcomes evaluations	Privacy concerns are always important when collecting patient data. States must have strong policies for encryption, truncating, storing, aggregating, and otherwise masking the data prior to its use. Providers concerned about the liability of reporting, collection of these data for emergent admissions. Provider burden to report this field.	**Y**
Medicaid Provider Identifier Number	27 States (NAHDO 1998)	National Provider Identifier Number pending national system	**NO RECOMMENDATION** PENDING THE RELEASE OF PROPOSED FEDERAL REGULATIONS	Review and comment on proposed regs to assure that system meets public health and research needs		**Y**

OUTPATIENT STATE FIELD	NUMBER STATES COLLECTING	NATIONAL DEFINITION or DESCRIPTION	NAHDO RECOMMENDS	JUSTIFICATION	CONCERNS	Core NCVHS Y/N
Outpatient Fields Required from Providers						
Admission Hour+	7/33	X12N: Loop 2300, Situational The time of the admission to the facility.	STATE EDUCATION ISSUE: RECOMMEND AS STANDARD ELEMENT IN OUPT. DATA COLLECTION	Important information for cost, quality, access studies and quality improvement efforts	Education of States	N
Discharge Hour+	6/33	Required on all Inpatient Claims Req: DTP01, element 374 Admission Date and Hour Expression of a date, a time, or range CCYYMMDDHHMM Hour that the patient was discharged from inpatient care.	STATE EDUCATION ISSUE: RECOMMEND AS STANDARD ELEMENT IN OUPT. DATA COLLECTION			N
Operating Time+	1/33	None	NY uses NUBC value code CONTENT ISSUE? OPEN DISCUSSION			N

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Hours for Observations Stay+	1/44	None identified	NO RECOMMENDATION: STATE POLICY ISSUE Massachusetts: Outpatient Observation: Service Units field to capture hours: 2 decimal numbers. For hospitals capturing this field in ranges (0-2 hrs), they are asked to round up to the nearest round number.	Observation days are increasing as a proportion of non-inpatient visits.		N
New Request: Patient Consent Field for Immunization Encounters	Forwarded by Registry Staff in 1 state	Situational: Immunization encounters: HL7 2.3.1: Protection indicator (PD1 3.3.9. 12, ID-1, Optional) 00744 Identified whether access to information about this person should be kept from users who do not have adequate authority for the patient. Null=patient/guardian not asked or has not responded Y-sharing is allowed (consent given or implied) N=sharing is not allowed (patient has refused consent)	OPEN DISCUSSION, NO RECOMMENDATION AT THIS TIME This field will be used by immunization registries to indicate whether or not consent has been given (or assumed) for record sharing.	Bringing clinical and encounter/ administrative data together is an important first step in integrating data		N